



Record of Modification

Phase 1 Site Characterization Sampling and Analysis Plan Field Activities
Columbia Fall Aluminum Company RI/FS
Phase 1 SAP MOD #8

Instructions to Requester: Submit to Roux RI Manager or Roux RI/FS Project Manager
Roux RI Manager will maintain legible copies in a binder that can be accessed by personnel.

Project Work Plan/QAPP (check one):

☒ 2015 Phase 1 SAP

☐ SOP (Title, # and approval
date): _____

Requester: Michael Ritorto, RI Manager

Date: 8/30/2016

Applicable section of SAP/SOP:

SAP Section 4.9: Surface Water and Sediment Sampling

Description of Modification:

Selected surface water and sediment sample locations within the Flathead River will be sampled via boat. When sampling from the boat, a ponar dredge sampling device and/or other hand tools will be utilized to collect the sample in accordance with Roux SOP 5.2 that was provided in the Phase I SAP. The boat and captain will be provided by Kennedy/Jenks Consulting (Whitefish, Montana). Kennedy/Jenks Consulting is new subcontractor to the project and will be working as a subcontractor to Roux Associates.

During use of the boat, Roux Associates and Kennedy/Jenks personnel will implement safe boating practices including use of a personal flotation devices and spotting of sampling personnel while sampling. Additionally, all personnel involved with the sampling will review the Job Hazard Analysis for boating activities provided by Kennedy/Jenks (see attached). A tailgate meeting will also be held before the boating event and potential hazards and mitigative actions will be discussed.

Rationale for Modifications / Potential Implications of Modifications:

During the initial site reconnaissance, several surface water and sediment sample locations along the Flathead River were deemed inaccessible by foot due to the presence of forested areas and limited bank/shoreline for traversing. Use of a boat to access some of the sampling locations will provide easier and safer access to the sampling locations. The boat will also allow Roux Associates personnel to utilize a probe bar to evaluate if sediment is present and determine the final sampling locations prior to sample collection.

Duration of Modification (Check one):

☒ Temporary

Date(s) 8/30/2016

Sample Numbers CFSW/CFSD 001 through 008 and 017

☐ Permanent (Proposed Text Modification Section)

Effective Date: _____

Proposed Text Modifications in Associated Document:

Data Quality Indicator (check one) – Please reference definitions on next page for direction on selecting data quality indicators:

☐ Not Applicable

☐ Reject

☐ Low Bias

☐ Estimate

☐ High Bias

☒ No Bias



Roux Project Manager Approval: Michael Ritorto Date: 8/30/2016
(Roux RI/FS Project Manager or designate)

EPA Review and Approval: Mike Cirian Date: _____
(USEPA RPM or designate)

DATA QUALITY INDICATOR DEFINITIONS

Reject – Samples associated with this modification form are not useable. The conditions outlined in the modification form adversely affect the associated sample to such a degree that the data are not reliable.

Low Bias – Samples associated with this modification form are useable, but results are likely to be biased low. The conditions outlined in the modification form suggest that associated sample data are reliable, but estimated low.

Estimate – Samples associated with this modification form are useable, but results should be considered approximations. The conditions outlined in the modification form suggest that associated sample data are reliable, but estimates.

High Bias – Samples associated with this modification form are useable, but results are likely to be biased high. The conditions outlined in the modification form suggest that associated sample data are reliable, but estimated high.

No Bias – Samples associated with this modification form are useable as reported. The conditions outlined in the modification form suggest that associated sample data are reliable as reported.